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HARNESS DICKEY

G. Gregory Schivley
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Certificate
NOV 09 2006
of Correction

November 3, 2006

Director of the United States Patent and Trademark Office
P.O. Box 1450
Alexandria, Virginia 22313-1450

Re: Atty Docket No. 9319A-000222
U.S. Patent No. 6,979,374 / Issued: December 27, 2005
Title: "MAGNETIC POWDER, MANUFACTURING METHOD OF MAGNETIC POWDER AND BONDED MAGNETS"
Inventors: ARAI, et al.

Sir:

We have reviewed the above-indicated patent and have found several errors which appear to require a Certificate of Correction.

Enclosed herewith are an original and a copy of the Patent and Trademark Office Certificate of Correction form which we request be approved for the above-indicated patent.

Please charge $100.00 to Epson R&D Deposit Account No. 50-3213 and any further fees which may be due. A duplicate copy of this sheet is enclosed.

Respectfully submitted,

EV 757 778 278 US

By: ______________________
G. Gregory Schivley
Reg. No. 27,382
HARNESS, DICKEY & PIERCE, P.L.C.
Attorneys for Patentee

~~EV 879 350 308 US~~

11/08/2006 MBELETE1 00000016 503213 6979374

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CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as express mail in an envelope addressed to: Director of the United States Patent and Trademark Office, P.O. Box 1450, Alexandria, Virginia 22213-1450 on Nov 3, 2006.

By ______________________

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO : 6,979,374

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Columns 20-22
Lines 44-34, Delete Claims 1-18 and insert:

-- 1. A magnetic powder comprising:

an alloy composition represented by $R_x(Fe_{1-a}Co_a)_{100-x-y-z}B_yM_z$ (where R is at least one rare-earth element selected from the group consisting of Nd and Pr, a ratio of Pr with respect to a total mass of R is in the range of 20-60%, M is at least one element selected from Ti, Cr, Nb, Mo, Hf, W, Mn, and Zr, x is 7.1 – 9.9 at%, y is 4.6 – 8.0 at%, z is 0.1 – 3.0 at %, and a is 0 – 0.30);

wherein the magnetic powder further comprises a composite structure having a soft magnetic phase and a hard magnetic phase;

an average particle size of the magnetic powder is 1-50 μm; and

when the magnetic powder is mixed with a binding resin and then the mixture is subjected to compaction molding to form a bonded magnet having a density $\rho[Mg/m^3]$, a maximum magnetic energy product $(BH)max[kJ/m^3]$ of the bonded magnet at room temperature satisfies the relationship represented by the formula of $(BH)max/\rho^2[x10^{-9} J \cdot m^3/g^2] \geq 2.40$, and the intrinsic coercive force H_{CJ} of the bonded magnet at room temperature is in the range of 430 – 750 kA/m.

2. The magnetic powder as claimed in claim 1, wherein the remanent magnetic flux density Br[T] of the bonded magnet at room temperature satisfies the relationship represented by the formula of $Br/\rho[x10^{-6} T \cdot m^3/g] \geq 0.125$.

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It is certified that error appears in the above-identified patent and that said Letters Patent are hereby corrected as shown below:

3. A magnetic powder comprising:

an alloy composition represented by $R_x(Fe_{1-a}Co_a)_{100-x-y-z}B_yM_z$ (where R is at least one rare-earth element selected from the group consisting of Nd and Pr, a ratio of Pr with respect to a total mass of R is in the range of 20-60%, M is at least one element selected from Ti, Cr, Nb, Mo, Hf, W, Mn, and Zr, x is 7.1 – 9.9 at%, y is 4.6 – 8.0 at%, z is 0.1 – 3.0 at%, and a is 0 – 0.30);

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4. The magnetic powder as claimed in claim 1, wherein the magnetic powder has been obtained by milling a melt spun ribbon.

5. The magnetic powder as claimed in claim 4, wherein the thickness of the melt spun ribbon is 10 - 40μm.

6. The magnetic powder as claimed in claim 4, wherein the melt spun ribbon has been obtained by colliding a molten alloy of a magnetic material onto a circumferential surface of a cooling roll which is rotating to cool and then solidify the molten alloy.

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7. The magnetic powder as claimed in claim 6, wherein the cooling roll includes a roll base made of a metal or an alloy and an outer surface layer provided on an outer peripheral portion of the roll base to constitute the circumferential surface, in which the outer surface layer of the cooling roll has a heat conductivity lower than the heat conductivity of the roll base.

8. The magnetic powder as claimed in claim 7, wherein the outer surface layer of the cooling roll is formed of a ceramic.

9. The magnetic powder as claimed in claim 1, wherein the magnetic powder has been subjected to a heat treatment at least once during the manufacturing process or after the manufacture of the magnetic powder.

10. The magnetic powder as claimed in claim 1, wherein the mean crystal grain size of the magnetic powder is 5 – 50nm.

11. The magnetic powder as claimed in claim 3, wherein the magnetic powder has been obtained by milling a melt spun ribbon.

12. The magnetic powder as claimed in claim 3, wherein the thickness of the melt spun ribbon is 10 - 40μm.

13. The magnetic powder as claimed in claim 11, wherein the melt spun ribbon has been obtained by colliding a molten alloy of a magnetic material onto a circumferential surface of a cooling roll which is rotating to cool and then solidify the molten alloy.

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14. The magnetic powder as claimed in claim 13, wherein the cooling roll includes a roll base made of a metal or alloy and an outer surface layer provided on an outer peripheral portion of the roll base to constitute the circumferential surface, in which the outer surface layer of the cooling roll has a heat conductivity lower than the heat conductivity of the roll base.

15. The magnetic powder as claimed in claim 14, wherein the outer surface layer of the cooling roll is formed of a ceramic.

16. The magnetic powder as claimed in claim 3, wherein the magnetic powder is constituted from a composite structure having a soft magnetic phase and a hard magnetic phase.

17. The magnetic powder as claimed in claim 3, wherein the magnetic powder has been subjected to a heat treatment at least once during the manufacturing process or after the manufacture of the magnetic powder.

18. The magnetic powder as claimed in claim 3, wherein the mean crystal grain size of the magnetic powder is 5 – 50nm.--

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PTO/SB/44 (04-04)
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